APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/684,328	10/10/2000	Moriyoshi Ohara	JA999-169	4043

21254	7590	06/24/2004

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EXAMINER
HSU, JONI

ART UNIT	PAPER NUMBER
2676	

DATE MAILED: 06/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/684,328	OHARA ET AL.
	Examiner	Art Unit
	Joni Hsu	2676

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-14* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-14* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All   b)☐ Some * c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or
> described as set forth in section 102 of this title, if the differences between the subject
> matter sought to be patented and the prior art are such that the subject matter as a whole
> would have been obvious at the time the invention was made to a person having ordinary
> skill in the art to which said subject matter pertains. Patentability shall not be negatived
> by the manner in which the invention was made.

2.   The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459

(1966), that are applied for establishing a background for determining obviousness under 35

U.S.C. 103(a) are summarized as follows:

> 1.   Determining the scope and contents of the prior art.
> 2.   Ascertaining the differences between the prior art and the claims at issue.
> 3.   Resolving the level of ordinary skill in the pertinent art.
> 4.   Considering objective evidence present in the application indicating obviousness
>   or nonobviousness.

3.   Claims 1-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yutaka (US

5,664,163) in view of Peaslee (US 5,265,203).

4.   With regard to Claim 1, Yutaka discloses a data transferring apparatus for transferring

transfer packets each including one or more transfer data as objectives of transfer from a first

apparatus (42, 43, 45, Figure 1) to a second apparatus (61), each transfer data including

commands indicated processes against a preliminarily assigned area, the first apparatus including

a scheduler for merging a plurality of the transfer data (43; Col. 6, lines 65-67; Col. 7, lines 1-

13), and a communication controller (42) for generating transfer packets each including at least

one of one or more transfer data whose amount is within a certain predetermined range (Col. 2,

line 15) and one or more merged transfer data (Col.3, lines 1-8, 25-28), the communication

controller transferring the generated transfer packets to the second apparatus (45; Col. 3, lines

12-14).

Yutaka, however, is silent as to whether the plurality of transfer data merged by the

scheduler is merged by meeting a certain requirement. According to the disclosure of this

application, the certain requirement that is met is that the scheduler merges the data in

accordance with the mutual dependency of the instructions among themselves (Page 15, lines 13-

18). However, Peaslee discloses a scheduler, which Peaslee calls a cogenerator (10, Figure 1),

for merging a plurality of transfer data (Col. 3, lines 19-23). The cogenerator has a multiprocess

scheduler (12, Figure 2; Col. 5, lines 5-12) that prevents the subsystems from using the same

output at the same time, which means that the data must be merged in such a way that that they

are not depending on the same output, which means that the data is merged in accordance with

the mutual dependency of the instructions among themselves (Col. 5, lines 50-59).

It would have been obvious to one of ordinary skill in this art at the time of invention by

applicant to modify the device of Yutaka so that the scheduler merges the data in accordance

with the mutual dependency of the instructions among themselves as suggested by Peaslee

because Peaslee suggests that the data that are dependent on each other cannot be transferred at

the same time (Col. 5, lines 54-59).

5.   With regard to Claim 2, Claim 2 is the same as Claim 1, except that Claim 2 does not

have specific names for the scheduler and the communication controller, so Yutaka and Peaslee

also disclose Claim 2.

6.   With regard to Claim 3, if both the drawing device section (61, Figure 1) and the packet

buffer for setting a drawing instruction sequence, which is part of the main memory (43; Col. 7,

lines 1-13) are taken to be the scheduler that is part of the means for merging (43, 61), and the

image monitor device (65) is taken to be the second apparatus instead, then Yutaka discloses that

the means for merging comprises a scheduler (43, 61) for judging whether an offset can be

performed by merging an increment of data volume (Col. 3, lines 25-28) caused by a change of

drawing commands (Col. 8, lines 54-62; Col. 9, lines 1-3).

7.   With regard to Claim 4, Yutaka discloses that if the scheduler (43, 61, Figure 1) judges

that the offset is possible, then the scheduler changes the drawing commands (Col. 8, lines 54-

62; Col. 9, lines 1-3).

8.   With regard to Claim 5, Yutaka discloses that the means for generating comprises a

communication controller which generates the transfer packets which contain merged drawing

commands which are more than a predetermined data volume in quantity (Col. 2, lines 32-33;

Col. 4, lines 5-8).

9.   With regard to Claim 6, Yutaka discloses that the first apparatus comprises a computer

(Col. 1, lines 9-14) and the second apparatus comprises a display apparatus (65, Figure 1).

10.   With regard to Claims 7-10, Claims 7-10 are the same as Claims 2-4 and 6, except that

Claims 7-10 are for a method instead of an apparatus. Yutaka discloses both the data

transferring method (Col. 2, lines 46-62) and its apparatus. The details of the method can be

seen in Figure 11, steps 101-109, and are described in Col. 11, lines 31-67; Col. 12, lines 1-37.

The details for the method for changing the drawing commands if the judging judges that the

offset is possible, with regard to Claim 9, can be seen in Figure 4C; Col. 9, lines 38-51.

Peaslee also discloses both the apparatus and method. Figure 3 illustrates the method of

how the multiprocess scheduler operates and Figure 4 illustrates the method of the task control

functions. Figures 3 and 4 are described in Col. 5, line 48 to Col. 8, line 6.

11.   With regard to Claims 11-14, Claims 11-14 are the same as Claims 7-10, except that

Claims 11-14 are for a medium for mediating a program to be executed on a computer. The

method (101-109, Figure 11; Col. 11, lines 31-67; Col. 12) disclosed by Yutaka is a program that

is executed on a computer (42, Figure 1; Col. 11, lines 31-34), so Yutaka discloses a medium for

mediating this program to be executed on a computer.

Peaslee discloses a programmable scheduler (Col. 1, lines 31-35), so the method (Figures

3 and 4; Col. 5, line 48- Col. 8, line 6) is a program. Peaslee also suggests that the program is

executed on a computer (Col. 1, lines 48-53), so Peaslee discloses a medium for mediating a

program to be executed on a computer.

12.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Vegesna (US 5,640,588) teaches a scheduler (2, Figure 18) for merging a plurality of transfer data in accordance with the mutual dependency of the instructions among themselves (Col. 3, lines 12-37; Col. 23, lines 6-20). Vegesna also teaches that when there are data dependencies between instructions, they cannot be issued simultaneously (Col. 33, lines 38-40), and Vegesna suggests the advantage of achieving multiple launches and executions of the instructions by merging the data in accordance with the mutual dependency of the instructions among themselves (Col. 3, lines 12-37). Vegesna discloses both the apparatus and method (Col. 1, line 12). The details of the method for merging a plurality of transfer data in accordance with the mutual dependency of the instructions among themselves are described in Col. 26, lines 4-62.
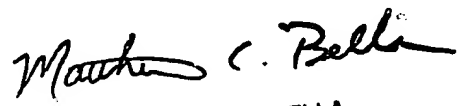
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joni Hsu whose telephone number is 703-305-4418. The examiner can normally be reached on M-F 8am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew C. Bella can be reached on 703-308-6829. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JH

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